

KING COUNTY EMS CBT ONLINE REPORT
EXECUTIVE SUMMARY
September 2004

In September 2001, King County EMS created the CBT Online website to help EMTs meet continuing education and recertification requirements. To date there are over 5,000 users enrolled and EMTs have completed over 32,000 courses on the website.

KC EMS recently surveyed training officers to assess satisfaction and cost benefits of the CBT Online website. A ten-item questionnaire was sent to 37 training officers. 24 training officers, representing 88% of all EMTs in the county, responded by returning a completed questionnaire.

Summary of Survey Results

- CBT Online saves an estimated \$329,670 per year in EMT time (8,910 hours)
- CBT Online saves an estimated \$70,720 per year in training officer time (1,360 hours)
- 96% of training officers believe CBT Online is an excellent tool to help them meet CBT requirements
- 83% of training officers believe that their EMTs are getting better quality EMS education since adopting CBT Online
- 83% report savings of training officer time
- 70% of EMTs do CBT Online in self-study while at work, 18% in groups while at work, 11% at home, and 1% in a classroom setting

The CBT Online website offers the following benefits when compared to traditional instructor-based classroom training: easier scheduling, lower overall costs, EMT convenience (24/7 access), increased time for hands-on training, reliable distribution of timely information (e.g., protocol changes), consistent and standardized content delivery, and automation of training records. Disadvantages of CBT Online include the need for technical support and the lack of individualized interaction.

Overall, CBT Online is viewed by the EMS agencies as a valuable tool that provides efficiencies that result in significant savings for EMS agencies.

CBT ONLINE DESCRIPTION

CBT Online is a website that offers courses on EMS topics and a variety of educational resources including: links to advanced content, interactive video-based case studies, an *Ask the Doc* question and answer forum, practice exams, news updates, and performance reports. The website also offers a library of downloadable materials and a *Case of the Month* library to further enhance BLS provider education.

EMTs who use the online courses receive quality training in consistent format. They like the courses and learn from them because they are interactive and engaging. The website makes it easier to schedule and conduct training because it is available 24 hours a day/7 days a week. Training data are easily automatically stored and easily accessible.

KC EMS is continually improving the website by offering improved courses, news updates and expanding the question and answer forums. We also provide technical support for EMTs and training officers. Soon, we will be collaborating with Harborview Paramedic Training program to expand the website offerings to include content for paramedics. KC EMS each year expands the website's technical capabilities, offering new and innovative ways of learning.

CBT Online Vitals

EMTs enrolled in CBT Online	5,064
Courses completed (since inception 9/01)	32,737
Technical support responses (since 9/01)	1,393
Courses on website	18
Test items in test bank	610
Pages of content on website	876
Downloadable documents	65
Video clips	239
Audio files	375
Graphic and photo images	139
Instructional exercises	88

Exam Score Distribution (n=34,482)

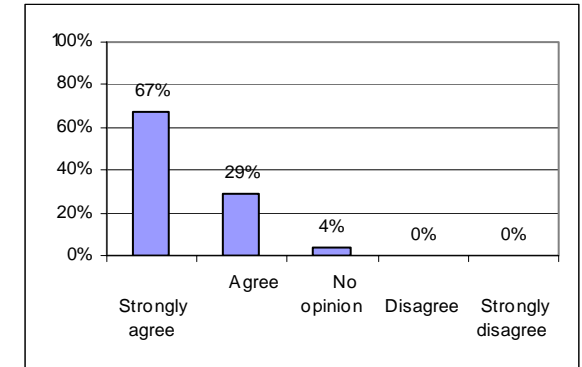
<u>Score (% correct)</u>	<u>Total</u>	<u>Percent</u>
100%	16,462	47.7%
90%	10,066	29.2%
80%	4,380	12.7%
70%	1,829	5.3%
60%	564	1.6%
50%	228	0.7%
40%	61	0.2%
30%	25	0.1%
20%	19	0.1%
10%	10	0.0%
0%	838	2.4%

TRAINING OFFICER QUESTIONNAIRE RESULTS

Training Officer questionnaire responses July 15 - August 31, 2004

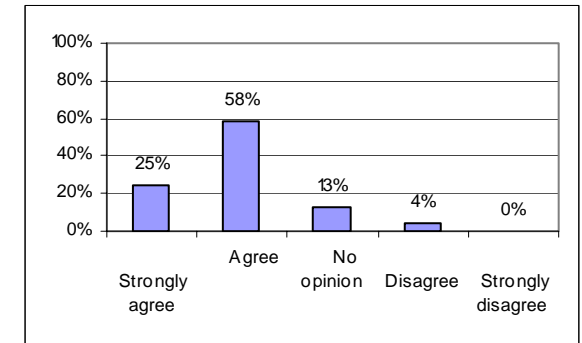
1. The CBT Online website is an excellent tool to help our department meet CBT requirements.

	<u>number of responses</u>	<u>percent</u>
Strongly agree	16	67%
Agree	7	29%
No opinion	1	4%
Disagree	0	0%
Strongly disagree	0	0%



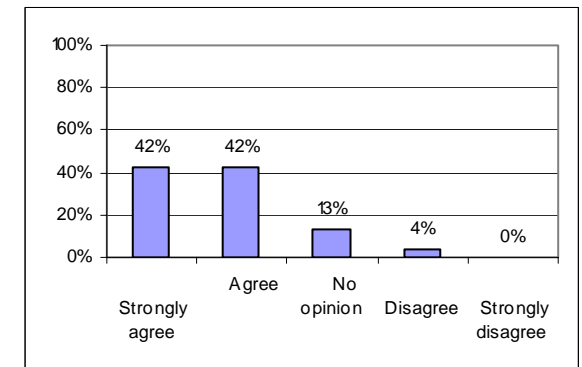
2. EMTs are getting better quality EMS education since our department started using the CBT Online website.

	<u>number of responses</u>	<u>percent</u>
Strongly agree	6	25%
Agree	14	58%
No opinion	3	13%
Disagree	1	4%
Strongly disagree	0	0%



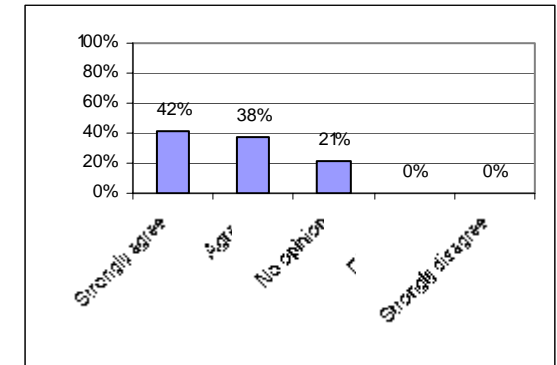
3. The CBT Online website makes record keeping easier for me and my staff.

	<u>number of responses</u>	<u>percent</u>
Strongly agree	10	42%
Agree	10	42%
No opinion	3	13%
Disagree	1	4%
Strongly disagree	0	0%



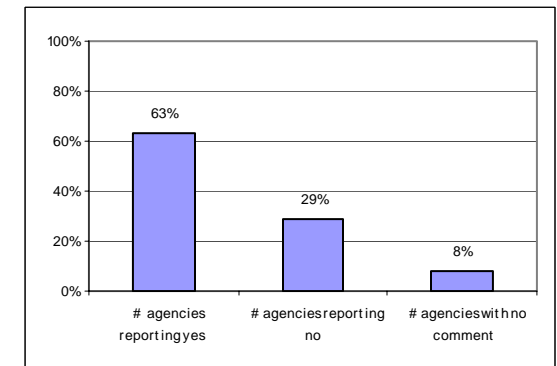
4. The CBT Online website reduces training-related scheduling problems.

	<u>number of responses</u>	<u>percent</u>
Strongly agree	10	42%
Agree	9	38%
No opinion	5	21%
Disagree	0	0%
Strongly disagree	0	0%



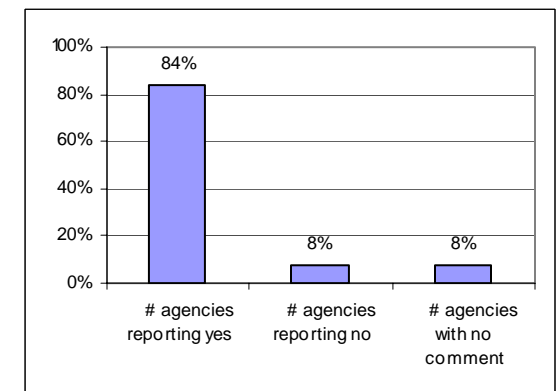
5. In terms of EMT time saved, estimate the number of hours the CBT Online website saves your department per year.

	<u>number of responses</u>	<u>percent</u>
# agencies reporting yes	15	63%
# agencies reporting no	7	29%
# agencies with no comment	2	8%
TOTAL # of hours saved	8910	N / A



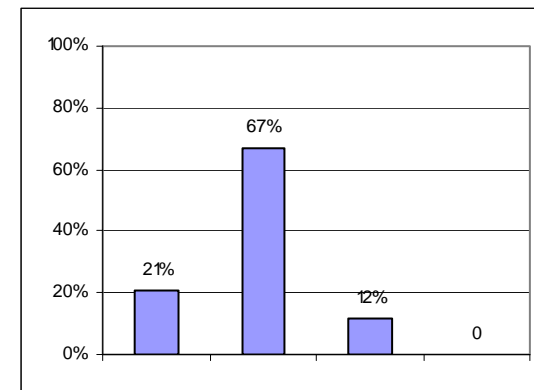
6. In terms of training officer/training staff time saved, estimate the number of hours the CBT Online website saves your department per year.

	<u>number of responses</u>	<u>percent</u>
# agencies reporting yes	20	84%
# agencies reporting no	2	8%
# agencies with no comment	2	8%
TOTAL # hours saved per year	1360	N / A



7. If there are savings that you can attribute to CBT Online besides those listed in # 5 and # 6 above, please list them in the box below and enter the number of hours saved

	<u>number of responses</u>	<u>percent</u>
a. # of agencies reporting no other savings	5	21%
b. # agencies reporting other ways to save time or money	16	67%
c. # agencies with no comment	3	12%
d. TOTAL # hours saved per year	198.75	N / A



8. What EMT records or data would you like to be able to enter (manually) into the CBT Online website? Check all that apply.

	<u>Yes</u>	<u>Percent</u>
a. practical skills data	19	79%
b. instructor credentials (CBT, AED, CPR)	11	46%
c. recertification dates (for example: recert due 4/2006)	15	63%
d. certification level (for example: EMT)	5	21%
e. sorting of reports by date	8	33%

9. Estimate the percent of EMTs in your department who take CBT Online courses using the different methods listed. (All four boxes should total 100%)

	<u>8a - alone/on duty</u>	<u>8b alone/home</u>	<u>8c – sm groups</u>	<u>8d – in class</u>	<u>Total</u>
Federal Way Fire	100%	0	0	0	100%
Shoreline Fire	100%	0	0	0	100%
Snoqualmie Fire	100%	0	0	0	100%
Renton Fire	100%	0	0	0	100%
Mercer Island	100%	0	0	0	100%
Bothell Fire	100%	0	0	0	100%
Bellevue	100%	0	0	0	100%
Redmond Fire	90%	0	10%	0	100%
Burien Fire (KCFD 2)	85%	5%	10%	0	100%
Eastside Fire	80%	15%	0	5%	100%
Kent Fire	80%	0	20%	0	100%
Woodinville Fire	80%	0	20%	0	100%
Kirkland Fire	80%	0	20%	0	100%
Port of Seattle	75%	25%	0	0	100%
North Highline Fire	75%	25%	0	0	100%
AMR	70%	30%	0	0	100%
Maple Valley Fire	70%	25%	5%	0	100%
Boeing Fire	70%	0	0	30%	100%
Auburn Fire	60%	0	40%	0	100%
KCFPD # 27	50%	50%	0	0	100%
Pacific	50%	50%	0	0	100%
Seattle Fire	45%	10%	45%	0	100%
Black Diamond Fire	40%	60%	0	0	100%
KCFD # 47	20%	80%	0	0	100%

TRAINING OFFICER COMMENTS

Other Areas Where CBT Online Generates Savings (Questionnaire Item #7)

“The amount of time that is wasted to restart classes when crews go on calls during the class. Busy departments have a hard time getting a one hour class done without being interrupted.” – Shoreline FD

“Time has increased since I have to track two sources for each class. Example, a CBT class must be tracked online, for the written test, and paper tracked, for the practical.” – Renton FD

“Having to provide for make-up classes.” – Woodinville FLS

“Reduces ‘windshield time’ (travel to and from classes). Estimate 45 minutes per class per crew per class.” – Kirkland FD

“Reduces the amount of time on content.” – Seattle FD

“...EMTs use the computer for their classroom portion versus being taught from an instructor, so the hours are about the same. We do save on instructor set up and prep for the class. I would say we save around 40 hours of prep time per year saved.” – Boeing Fire

“The online CBT program does not save time for us. It is a great tool to ensure the EMT completes the reading. I would not change the system based only on a lack of time saved. However, we do save administration time for record keeping.” – Bothell FD

General Comments About CBT Online (Questionnaire Item #10)

“Would like to see other tests that can be taken on line such as quarterly defib, patient care guidelines review, general EMT type questions which we can have someone take for review or to add to our training, in addition to required CBT tests. That would be nice. Thanks for asking, you guys are doing a good job.” – Eastside Fire and Rescue

“We mainly use the online CBT for make ups. We have a medic that teaches classes to our members. We prefer that method because we feel we get better training. Online CBT is useful in regards to be used as a make up for those who miss the medic class and for special classes (EpiPen, pulse ox, glucometry)” – Snoqualmie FD

“[We would like to see in the reports] all of the information needed for the recertification application. Data for this application could be entered for each EMT as the training is completed. When recertification is due, the "file" for each can be forwarded for review to the proper authority. Any accompanying paperwork could be filled out by the EMT and included in the "file". To keep the integrity of this data, authorized personnel for each department will be the only ones able to enter the needed data.” – Mercer Island FD

“A very good product that we use as an adjunct to existing training programs.” – Kent FD

“I strongly believe that the Paramedics should be involved with CBT Training. Does King County have Paramedics teach their Tuesday Series or is it a Doctor? If Paramedics taught CBT Classes, the On-Line CBT would be a great tool for pre-study and for make-up classes.” – Woodinville FLS

“CBT online has been a great tool and has reduced out of service times. It allows great flexibility in scheduling. I would like to see additional media used in the online classes. Video, talking heads, etc. would enhance the learning experience. Keep up the good work!” – Kirkland FD

“The Port of Seattle Fire Department is very satisfied with the website. We would like to continue issuing the tests in house. This allows for better tracking and make-up processes.” – Port of Seattle FD

“The program is working well for our department.” – Auburn FD

“We are in the process of working on a number of database issues. At this time we do not know if we would use KCEMS or an internal database(s). Our needs would be for the following: A) Combined didactic / practical skills session completed – grouped into Fall or Spring CBT. B) Recertification dates. C) Fire Department Identifier (injury / illness #). D) Card received from State. E) Required yearly Infectious Disease Review. F) Read only accessible by EMT” – Seattle FD

“While the CBT online program allows the EMT to read the monthly reading and be at the class prepared, in Bothell it does not save time for us. The computers are slower and the CBT programs take longer to complete.” – Bothell FD

“Using the online CBT program is not so much about saving time as it is using time more efficiently. Busing doing the written exam online, our contract CBT instructor class time is solely for instruction. I would like to see items like the EpiPen, pulse oximetry, and glucometry be made yearly as a refresher.” – Burien FD

“We have nothing but excellent things to say regarding the CBT online program. It is very useful, we still have paramedics come in and lecture on the topics or subject matter. The expand and give us a little extra information on the subject matter.” – Black Diamond FD

“I have received a lot of positive comments from most of our EMTs about the information and testing on the website. There are still a few that are less competent in their computer skills and are struggling. We have made it mandatory for the EMTs to do the testing portion online and will work with the folks that show some reluctance. It is a very valuable resource and I think you have done a remarkable job. Thanks!” – KCFPD 47

“We as a department have not converted to online training. Only 4 of us out of approximately 40 are online at this time. We are currently working on getting everyone online, but are a little behind as we are primarily a volunteer agency with high turnover.” – Pacific FD

“Love the CBT Online Training Program, keep it up guys.” – Bellevue FD

“This is a great program so far. It has a 99 % approval rate here. There are always a few who do not do well with change.” – AMR

EMT COMMENTS

This is GREAT! ...There is a lot to be said for the fact that I can interact with it, being computer illiterate...I find this on-line information, with all it's links, fascinating, and intimidating at the same time. Very Impressed. – Chris Kroha, Black Diamond FD

I like the online setup. I really like the teaching guide with all the links to information and video presentations. – Daniel DeGidio, ESFR

The only way to fly. – Will Staley, Enumclaw FD

Great tool for learning, especially for us slow learners. Great links for audio and animation that helps the learning process. – Steve Cook, Woodinville FLS

Very well done. I was skeptical of the content of the online versions, however, I do appreciate the ability to open additional links to learn more about specifics of chest pain. Thanks. – Pete Brummel, ESF&R

Greetings from a new student. This format is excellent and the ability to go to other sites for deeper study is quite a nice expansion or rekindling of my knowledge. Whoever dreamed this site up and created this should receive some kind of award because it is excellent. Thanks very much!!! Steve Hopf, Federal Way FD

Another great job. Thanks for... such an outstanding resource. – Jeff Budrys, ESFR

The online CBTs are great! The information is thorough and laid out well, the links to the additional information are informative, and for me anyway, I get a whole lot more out of the online stuff then I ever did reading the book. Thanks! – Stephanie Bourne, ESFR

Awesome job on the EMS training program guys! Thanks! – Tim Clark, Seattle FD

This is the first time utilizing testing online and so far so good. The online learning seems to be a nice way to go, it's a bit more interesting reading this way... – Jerry Blaylock, KCFD 2

I would just like to say that it is very helpful to have the audio available...thank you again for having this web site. – Scott M. Zachau, Maple Valley FLS

This new CBT curriculum is limited at best. The information that some of the questions asked on the test and on the review questions were not included. – Dane Stow, ESFR

I recently completed the CBT 432 Chest Pain online training, I found the online program flawed and of only low/moderate value. – Lt. Jack Olson, Redmond FD

I thought that the lesson plan was put together very well. The case studies with the videos were very nice to have. Keep up the good work. – Jeff Siemers, Redmond FD

Great CBT course. I found video clips helpful, as well as the illustrations.... – George Toles, Redmond FD

This was very informative, more information, well described, thanks. – Dick Breitenbach, ESFR

I love this new system. I'm the type of firefighter that learns by "doing" and the interactive element to this system is very beneficial to me. – Barry Collier, Mercer Island FD

Smokin' system, LOVE IT!!!!!!!!!!!!!!!!!!!!!!!!!!!! – Rick Webber, Duvall FD

Sorry folks, but I did not care for the recert test. – Dave Casselman, Auburn FD

Hello, thanks for having this fantastic site for us to continue our training. You've really done a superb job with it and it is greatly appreciated... – Michael Cunningham, FD 47

This is an outstanding process for CBT!! Really enjoyed the way you guys put this together. Not just a walk in the park, very challenging, en and engaging. – Lt Jerry Hughes, Bothell FD

You folks have done a great job with this. Please, keep up the good work! – Kris Gorshkov, Bothell FD.

I hate to sound like a broken record, but again, great job with the online CBTs...it is a great resource and very easy to use. The interactive practice exams & videos are really helpful and very well done. – David Conley, Eastside Fire and Rescue

This is my first experience with CBT online. I am very impressed with the tool your organization has developed and implemented. Amazing really. Thank you. – Robert Bandarra, AMR

This is the first online course I have taken for CBT and it is wonderful. I learned quickly and easily, loved the flash cards...really loved the photos. This is a big improvement over the instructor in front of the class model. This is an exceptional development in BLS training. Thank you. – Melanie Granfors, Shoreline FD

Thanks for putting these online its great. – Bertrum C. Warm, Maple Valley Fire and Life Safety

Thank you so much for making this available. It makes my life so much easier. – Lindsey Wolner, AMR

In my humble opinion, this was the best written and most informative CBT unit we've had in a few years! I like having this level of information. – John Petroske, AMR

I prefer classroom group interaction/discussion over a web based setting...the information provided on the web & the case studies are good, but I still feel uncomfortable with a web-based test. – Jim Hill, Boeing FD

Another excellent course! The varied use of examples, flash cards, questions, fill-in, charts, etc...keeps our interest focused. I appreciate the link to additional information on head trauma. The case studies were excellent. Keep up the great work. – Tom Langton, Redmond FD

...I am increasingly impressed with the quality of the programs available on line. The additional information boxes, links, etc are very helpful and put the icing on the cake for a very well thought out, put together lesson. I appreciate all that you people do. – Skip Boylan, Redmond FD

Great exams. So much more informative and very well laid out. Great for someone's who's been at the fire academy and needs to get caught up. Nice works and thanks. – Christian Minor, AMR

You're website is absolutely fantastic. – Dr Rachael Donohoe, London Ambulance Service